

Determination of Phenyl Radicals in
Organosilicon Compounds

S/075/60/015/005/003/004
B005/B064

Hexaethyl benzene is obtained with slight impurities of other ethylating benzene derivatives (Ref. 10) if the reaction products are saponified with water. From the amount of the hexaethyl benzene, it is possible to draw conclusions to the content of phenyl groups in the initial organosilicon compound. Since hexaethyl benzene has a high molecular weight and is not volatile, extremely accurate results are obtained from this determination. If constant conditions are observed in ethylation, also the reproducibility of the results is good. The method described is suited for determining benzene and its derivatives in purely organic compounds. The authors investigated phenyl trichlorosilane, methyl phenyl dichlorosilane, polyphenyl siloxane, polymethyl-phenyl siloxane and other organosilicon compounds with phenyl groups directly bound to silicon. Ethyl bromide serves at the same time as solvent in the reaction. 6-7 g anhydrous aluminum chloride and 35-40 g ethyl bromide are taken for 2-2.5 g of the organo-silicon compound to be investigated in the analysis of compounds with one phenyl radical per structural unit. Ethylation is carried out at 30°C and is finished after two hours. After the decomposition of the reaction products with water, the ethyl derivatives of benzene are extracted with slight amounts of ether. The extract is washed with water until neutral

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reaction is reached, then ether and the excess ethyl bromide are distilled off. The residue is dried in the vacuum exsiccator over P_2O_5 . After re-crystallization from ethanol or glacial acetic acid hexaethyl benzene is obtained in the form of white prisms melting at $126^{\circ}C$. The formula is given with which the content of phenyl groups in the initial compound can be determined. This formula comprises the ethylation coefficient that was experimentally found by ethylating various chemically pure organosilicon compounds. This coefficient has the value 0.91 ± 0.01 . A table shows the results of determining the phenyl radicals in phenyl trichlorosilane, methyl-phenyl dichlorosilane, polyphenyl siloxane and polymethyl-phenyl siloxane by the method described. The results are reproducible with an accuracy of $\pm 1-1.5\%$ (absolute). A. A. Khvoshchevskaya and L. M. Kharchevnikova took part in the experiments. There are 1 table and 11 references: 6 Soviet, 4 US, and 1 German.

ASSOCIATION: Moskovskiy khimiko-tehnologicheskiy institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: July 27, 1959
Card 3/3

S/191/61/000/004/006/009
B110/B208

AUTHORS:

Turkel'taub, N. M., Palamarchuk, N. A., Shemyatenkova, V. T.,
Syavtsillo, S. V.

TITLE:

Chromatographic analysis of organosilicon compounds
(analysis of the reaction mixture of the direct synthesis
of methyl chloro-silanes)

PERIODICAL: Plasticheskiye massy, no. 4, 1961, 51-56

TEXT: The numerous chloro-compounds contained in the reaction mixture of the direct synthesis of methyl chloro-silanes, such as HCl, CH_3Cl , $(\text{CH}_3)_2\text{SiCl}$, $(\text{CH}_3)_2\text{HSiCl}$, $\text{CH}_3\text{HSiCl}_2$, $(\text{CH}_3)_3\text{SiCl}$, SiCl_4 , CH_3SiCl_3 , $(\text{CH}_3)_2\text{SiCl}_2$ etc., have hitherto been fractionated and determined with respect to density and chlorine content. K. K. Popkov suggested analysis by means of dispersion spectra. These methods, however, are not applicable to automatic production control. Gas chromatography is adequate for this purpose. The optimum conditions for the separation of methyl chloro-silanes have now been determined. Fig. 1 shows the device used. Helium

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served as the carrier gas. The temperature of the dosing device, the detector, and the column was adjusted by a thermostat with an accuracy of 0.5°C. The components were identified from the retained volume V_g^0 . The percentual concentration C_i was calculated by measuring the area of the peaks according to $C_i = [(S_i \cdot K_{si}) / (\sum S_j \cdot K_{sj})] \cdot 100$, where S_i = area of the peak; K_{si} = standardizing coefficients of all components of the system studied. The equation $K_{si} = (S_c / S_i) \cdot (C_i / C_c)$ holds, where S_c = surface of the peak; C_c = concentration of the standard component. The following data were studied: dependence of the degree of separation on the various static and dynamic parameters, nature of the solid carrier, stationary phase, velocity and moisture content of the carrier gas, and column temperature. Carrier gas, solid carrier, and stationary phase have to be carefully dried. Celite-545 (water capacity 0.02 %) and annealed Inza clinker of the type 600 (water capacity 0.87 %) were used as solid carriers. To study the effect of the stationary phase on the degree of separation, non-polar compounds (vaseline oil and dodecane), highly polar compounds (nitrobenzene and diethylene glycol ester of n-butyric acid), as well as

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the polyethyl-siloxane liquids BKZh-94 (VKZh-94) and TM-200 (PMS-200), the polymethyl-phenyl-siloxane liquids TFM-3 (PFMS-3), TFM-4 (PFMS-4), and AC-703 (DS-703) with different degrees of polarity were studied. Complete separation was accomplished by TFM-4 (PFMS-4) polymethyl-phenyl-siloxane and vaseline oil, as well as by TFM-3 (PFMS-3) and AC-703 (DS-703). The optimum velocity of the carrier gas is $\alpha = 80$ cm/min at a maximum separation criterion $K_1 = 2.6$ and minimum theoretical plate height $H = 0.21$ cm for $(CH_3)_3SiCl$ and CH_3SiCl_3 . The lowest theoretical plate height $H = 2.4$ cm is obtained at $40^\circ C$. The separation criterion decreases with rising temperature. Only three experiments were carried out: 1) As a stationary phase, nitrobenzene (20 % of the total weight of the adsorbent) was applied to Inza clinker (granulation 0.25-0.5 mm). Separation of HCl, CH_3Cl , $SiCl_4$, $(CH_3)_3SiCl$, $(CH_3)_2SiCl_2$, and CH_3SiCl_3 was attained at $40^\circ C$ and 20 min duration of the experiment with a 2 m long column 4-5 mm in diameter (Fig. 4). In the second experiment, two columns connected in series were used. The first 1 m long column (diameter 4 mm) contained TFM-4 (PFMS-4) (15 % of the total adsorbent weight), and the second 3 m long column (diameter 4 mm), vaseline oil (15 % of the total adsorbent weight).

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weight). The solid carrier was celite-545. At 40°C, the following compounds were thus separated: HCl, CH₃Cl, (CH₃)₂Si, HSiCl₃, CH₃HSiCl₂, (CH₃)₃SiCl₃, (CH₃)₂SiCl₂. The stationary phase of the third experiment was TbMc-3 (PFMS-3) and Ac-703 (DS-703) (20 % of the total absorbent weight). The solid carrier was Inza clinker. The following compounds were separated at 40°C with a 4 m long column (diameter 4 mm): HCl, CH₃Cl, HSiCl₃, CH₃HSiCl₂, (CH₃)₂SiCl, SiCl₄, CH₃SiCl₃, (CH₃)₃SiCl₂. The following co-workers are mentioned: L. A. Nechayeva, A. A. Khvoshchevskaya and Ye. N. Balabanova. There are 6 figures, 5 tables, and 13 references: 8 Soviet-bloc and 5 non-Soviet-bloc. The references to English-language publications read as follows: Ref. 10: L. C. Curran, R. M. Witucki, P. A. McCusker, J. Am. Chem. Soc., 72, No. 10, 4471 (1960) Ref. 11: Edward, L. Reilly, J. Am. Chem. Soc., 76, No. 12, 3311 (1954) Ref. 12: W. H. Mefadden, Anal. Chem., 4, 479 (1958).

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S/075/61/016/001/015/019
B013/B055

AUTHORS: Terent'yev, A. P., Syavtsillo, S. V., and Luskina, B. M.

TITLE: Organic Elemental Analysis by the Wet Ashing Method.
Report II. Rapid Determination of Silicon in Organic
Silicon Compounds

PERIODICAL: Zhurnal analiticheskoy khimii, 1961, Vol. 16, No. 1,
pp. 83-86

TEXT: In the present work, a rapid method for determining silicon in organic silicon compounds was developed. It is based on the previously (Ref. 1) used method of ashing organic or elemental-organic compounds by oxidation with a chromic-acid/sulfuric-acid mixture at 150°-160°C. The silicic acid residue is filtered off (Ref. 3), dissolved in concentrated alkali solution and finally analyzed for silicon by titration according to Šir and Komers (Ref. 5). The determination requires 1.5 h. In analysis of ethoxy- or chloro silanes (containing no radicals) heating with the acid mixture is unnecessary, since these compounds readily hydrolyze in aqueous alkali with formation of sodium silicate, which simplifies the

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Organic Elemental Analysis by the Wet Ashing
Method. Report II. Rapid Determination of
Silicon in Organic Silicon Compounds

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procedure and reduces the time for one determination to 30 min. The method was tested with a number of pure organosilicon compounds (Table 1) and used for the determination of silicon in industrial ethyl polysiloxanes. The analytical results are in good agreement (Table 2) with the data obtained by the conventional method (Ref. 4). Examples of silicon determination without previous oxidation are listed in Table 3. In this case, the weighed samples were hydrolyzed with a 15% sodium hydroxide solution in a polyethylene vessel. In this type of compound, silicon and the hydrogen bound to silicon can be determined simultaneously in the same weighed sample (Ref. 7). The analyses were carried out by L. M. Kharchevnikova. A. P. Kreshkov and G. D. Nessonova are mentioned. There are 3 tables and 7 references: 6 Soviet and 1 Czechoslovakian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: March 4, 1960

Card 2/2

25054
S/075/61/016/004/004/004
B107/B207

55200
AUTHORS:

Bondarevskaya, Ye. A., Kuznetsova, V. M., and Syavtsillo, S.V.

TITLE:

Simultaneous determination of fluorine, silicon and chlorine
in organosilicon compounds containing fluorine and chlorine

PERIODICAL: Zhurnal analiticheskoy khimii, v. 16, no. 4, 1961, 472-476

TEXT: A method of simultaneous determination of fluorine, silicon, and chlorine in organosilicon compounds has hitherto not been described. The method described in this paper consists more or less of melting with metallic potassium at 900-1000°C, titration of fluorine with thorium nitrate, chlorine determination by means of thiocyanogen with thorium silicon determination. The latter is based on the following acidimetric reaction:
 $\text{Si}(\text{OH})_4 + 6\text{NH}_4\text{F} + 4\text{HCl} = (\text{NH}_4)_2\text{SiF}_6 + 4\text{H}_2\text{O}$. The HCl excess is back-titrated with alkali. The method was developed on several monomeric organofluoro-silicon compounds prepared by K. P. Grinevich and A. L. Klebanskiy. Furthermore, polymers and organosilicon compounds containing chlorine and fluorine were studied. Procedure: A weighed portion of 20 to 40 mg is filled into a polyethylene ampoule or into a gelatin

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tion and 0.1 N acid. 2 ml of neutral ammonium fluoride solution and 10 ml 0.1 N hydrochloric acid are added, the acid excess is rapidly back-titrated with alkali. The final color change is red - green. The silicon content is calculated by the following formula:

$Si (\%) = \frac{1}{a} (V - V_0) \cdot K \cdot 0.7015 \cdot 8 \cdot 100$, where V is the volume of 0.1 N alkaline solution in ml, required for titrating 20 ml of 0.1 N HCl; V_0 is the volume of 0.1 N alkaline solution in ml consumed for the back-titration of the acid excess; K is the normality factor of the 0.1 N alkaline solution; 0.7015, the silicon amount in mg corresponding to one ml of 0.1 N HCl; a , is the weighed portion in mg; 8, the coefficient corresponding to the fraction of titrated solution of the total quantity. The error of determination is below 0.5% absolute. The indicator is prepared by mixing two solutions: a) 0.1% alcoholic solution of methyl red, b) 100 ml 0.1% aqueous solution of bromcresol green with 0.5 ml of 0.1 N NaOH. 6 parts of solution a) are mixed with 5 parts of solution b). The neutral ammonium fluoride solution is prepared as follows: 40 ml of 25% ammonia are mixed with 25 ml of 40% HF. The mixture is diluted with water to one liter and, first approximatively neutralized and then against an indicator. Every day,

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Simultaneous determination of ...

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before experimental work is started, 20 ml of 0.1 N HCl and 10 ml of NH_4F solution are titrated with 0.1 N KOH. If the consumption is elevated, the ammonium fluoride solution has to be re-neutralized. The titer of hydrochloric acid is established with potassium iodate against a mixed indicator. The same indicator is subsequently used for titration of 0.1 N KOH against 0.1 N HCl. There are 5 tables and 29 references: 18 Soviet-bloc and 11 non-Soviet-bloc. The two references to English-language publications read as follows: Stobba F., Analyt. Chem. 3, 298 (1924); Haszeldine R. N., Markow R. J., J. Chem. Soc. 962 (1956).

SUBMITTED: June 14, 1960

Card 4/4

TERENT'YEV, A.P.; LUSKINA, B.M.; SYAVTSILLO, S.V.; Prinimala uchastiye:
KARABASHKINA, L.N.

Elemental organic analysis by the "wet combustion" method. Report
No. 4: Determination of carbon, silicon, and aluminum in organ-
oaluminosiloxane polymers. Zhur.anal.khim. 16 no.5:635-638
S-O '61. (MIRA 14:9)

J. Lomonosov Moscow State University.
(Silicon organic compounds)

LUSKINA, B.M.; SYAVTSILLO, S.V.; TERENT'YEV, A.P.; TURKEL'TAUB, N.M.

Microdetermination of carbon and hydrogen in organic compounds
by gas chromatography. Dokl. AN SSSR 141 no.4:869-871 D '61.
(MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Terent'yev).
(Carbon--Analysis) (Hydrogen--Analysis)
(Gas chromatography)

SYAVTSILLO, S.V.; LUSKINA, B.M.; KARABASHKINA, L.N.

Determination of an acetonitrile admixture in trimethylchlorosilane.
Plast.massy no.2:24 '62. (MIRA 15:2)
(Acetonitrile) (Silane)

ACCESSION NR AM4008922

BOOK EXPLOITATION

S/

Kreshkov, A. P.; Bork, V. A.; Bondarevskaya, YE. A.; My*shlyayeva, L. V.;
Syavtsillo, S. V.; Shemyatenkova, V. T.

Practical handbook on analysis of monomeric and polymeric silicones (Prakticheskoye
rukovodstvo po analizu monomernykh i polimernykh kremniyorganicheskikh
soyedineniy), Moscow, Goskhimizdat, 1962, 544 p. illus., biblio., index.
Errata slip inserted. 6,000 copies printed.

TOPIC TAGS:monomeric silicone, polymeric silicone, silicon, carbon, quality control,
lacquer, enamel

PURPOSE AND COVERAGE: This book is a handbook on analysis of monomeric and poly-
meric silicone compounds. It gives the fundamentals of the theory and modern
chemical, physical, and physical-chemical methods of analyzing silicon compounds,
methods of determining their physical constants and structure, methods of analyzing
the basic chemical products used in their production, and also the methods used
in experimental and industrial facilities for quality control. The book is intended
for engineers, technicians, and researchers of research and plant laboratories and
also for students and graduate students in the field of elemento-organic compounds.

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ACCESSION NR AM4008922

TABLE OF CONTENTS [abridged]:

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SUB CODE: CH

SUBMITTED: 30Nov62

NR REF SOV: 584

OTHER: 568

DATE ACQ: 29Jul63

Card 2/2

LUSKINA, E.M.; SYAVTSILLO, S.V.; LARIKOVA, G.G.

Determination of titanium and aluminum in triethylaluminum
production wastes. Plast.massy no.3:16-18 '62. (MIRA 15:4)
(Titanium--Analysis) (Aluminum--Analysis)

S/075/62/017/005/007/007
I033/I233

Elemental-organic analysis...

in order to eliminate the oxidizing agent. The precipitate is dissolved in 8 N HCl, washings are added and solution is diluted to the desired volume. In the H₂O₂ process, the excess of oxidizing agent is destroyed by 0.1 N KMnO₄ and the solution is again diluted to the desired volume. In both cases phosphate is then determined photometrically as a phosphoromolybdate blue, after previous reduction of Fe(III) by Na₂SO₃. The determination takes 2 hours. The error does not exceed 4%. There is 1 table.

SUBMITTED: July 25, 1961

Card 2/2

TURKEL' TAUB, N.M.; AYNSHTEYN, S.A.; SYAVTSILLO, S.V.

Chromatographic method of determining impurities in readily
hydrolyzable and reactive substances. Zav.lab. 28 no.2:141-144
'62. (MIRA 15:3)

(Chromatographic analysis)

LISKINA, B.M.; SIAVISHILLO, G.V.; BEREZOVAKAYA, B.Ye.; LARIKOVA, G.G.

Analysis of waste waters from the manufacture of organosilicon
products. Plast.massy no.5:61-62 '63. (MIRA 16:6)
(Bewage--Analysis) (Silicon organic compounds)

L 12971-63
ACCESSION NR: AT3002359

RPF(c)/EWP(j)/ENT(m)/BDS ASD Po-4/Pr-4 PH/kW
S/2513/63/013/000/0003/0007

AUTHORS: Luskina, B. M.; Terent'yev, A. N.; Svettsillo, S. V.

TITLE: Wet oxidation analysis of organosilica compounds containing various elements

SOURCE: AN SSSR. Komissiya po analiticheskoy khimi. Trudy v. 13, 1963.
Organicheskiy analiz, 3-7

TOPIC TAGS: H, C, Cl, Si, sulfuric acid, chromic acid, siloxane

ABSTRACT: Organosilica polymers containing metals or nonmetals are very resistant to oxidation or thermal effect. Two types of methods are employed in the analysis of organosilica compounds: The method of dry combustion which is performed in a stream of oxygen with a consequent analysis of H, C, Cl, and Si, and the method of wet oxidation based on the mineralization of the element-organic molecule with concentrated acids and additions of various oxidizers or catalysts which in the end permit the analysis of silica and the metal. The proposed method is based on the oxidation of the sample with a mixture of concentrated sulfuric and chromic acids in an oxygen atmosphere at a temperature of 150°C in the apparatus shown in the enclosure. The remaining uncombusted

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L 12971-63
ACCESSION NR: AT3002339

substance is burned in the quartz tube over chromium oxide absorbed on the surface of pumice. The temperature for phosphor-containing siloyanes was raised from 150°C to 180°C to obtain a complete decomposition. The organic-silicatitano compounds were decomposed in a mixture of acids at 150°C without prior treatment with H₂SO₄. In all cases, carbon was determined gravimetrically silica and solumina volumetrically, phosphorus and titanium colorimetrically and chloride argentometrically. Orig. art. has: 3 tables and 1 figure.

ASSOCIATION: None

SUBMITTED: OO DATE ACQ: 13Jun63 ENCL: 02
SUB CODE: CH, EL NO REF Sov: 003 OTHER: 000

Card 2/42

BONDAREVSKAYA, Ye.A.; KRISHKOV, A.P.; SYAVTSILLO, S.V.; KUZNETSOVA, V.M.

Elementary analysis of fluorine-containing organosilicon
compounds. Trudy Kom.anal.khim. 13:24-27 '63. (MIRA 16:5)
(Silicon organic compounds) (Fluoroine organic compounds)

BONDAREVSKAYA, Ye.A.; SYAVTSILLO, S.V.; POTSEPKINA, R.N.

Determination of alkoxy groups in some heteroorganic
compounds. Trudy Kom.anal.khim. 13:178-183 '63. (MIRA 16:5)
(Alkoxy groups) (Organometallic compounds)

L 12974-63

EXP(j)/EPF(c)/EMT(m)/BDS ASD Fe-4/Pr-4 RM/WW

ACCESSION NR: AT3002347

S/2513/63/013/000/0271/0283

AUTHOR: Palamarchuk, N. A.; Syavtsillo, S. V.; Turkel'taub, N. M. 66
Shemyatenkova, V. T.

TITLE: Chromatographic determination of chlorosilanesSOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy*, v. 13, 1963.
Organicheskiy analiz, 277-283TOPIC TAGS: chromatography, chlorosilane, helium, celite, dimethyldichloro-
silane, benzylbenzoate

ABSTRACT: This investigation is a continuation of a previous work which was done on the separation of chlorosilanes by gas-liquid chromatography. The present investigation was performed under isothermal conditions using helium as the carrier gas and a detector with two platinum elements embedded in glass. Each element had a 30 ohm resistance with a sensitivity of 600 mv. ml/mg. The identification of chlorosilanes was made according to their specific gravity and the relative retentive volume. The content of various components was determined by peak areas or peak heights by means of normalization. The solid support celite or diatomaceous brick was treated with dimethyldichlorosilane vapors in a dry, card 1/2

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ACCESSION NR: AP3002347

inert atmosphere after which its adsorption capability sharply decreased. In order to select the most effective stationary phase, several new materials were added to the ones previously investigated. These included benzylbenzoate, dimethylphthalate, dibutylphthalate, dinonylphthalate, tricresylphosphate, and diethylphthalate. On the basis of the obtained data stationary phases were selected which permit a complete separation of the components in a shortest amount of time. The stationary phases which are suggested to be used in an amount of 10% on celite or modified brick are benzylbenzoate, dibutylphthalate and diethylphthalate. With a column of 2.7-3.5 m long and 4 mm in diameter at a temperature of 30C and 40 ml/min gas flow, a complete separation of the following components takes place: (CH sub 3) sub 2 SiCl sub 2, CH sub 3 SiCl sub 3 SiCl, CH sub 3 HSiCl sub 2, (CH sub 3) sub 2 HSiCl, SiCl sub 4, HSiCl sub 3, H sub 2 SiCl sub 2, and CH sub 3 Cl. The time of analysis is 20 minutes with an accuracy of 2-3% relative error. Orig. art. has: 2 tables and 2 graphs.

ASSOCIATION: none

SUMMITTED: 00

DATE ACQ: 13Jun63

ENCL: 00

SUB CODE: CH

NO REF SOV: 003

OTHER: 003

Cord 2/2

TURKEL' TAUB, N.M.; SHEMYATENKOVA, V.T.; AYNSHTEYN, S.A.; SYAVTSILLO, S.V.

Determination of some organic impurities in raw materials and intermediate products of the synthesis of organosilicon compounds.
Trudy Kom.anal.khim. 13:284-289 '63. (MIRA 16:5)
(Silicon organic compounds)

SHTIFMAN, L.M.; SYAVTSILLO, S.V.; LARIKOVA, G.G.

Determination of the content of trialkyl aluminum and dialkyl aluminum hydride by the electrometric method. Trudy Kom.anal.khim. 13:
325-330 '63. (MIRA 16:5)
(Aluminum compounds) (Electrochemical analysis)

TERENT'YEV, A.P.; LUSKINA, B.M.; SYAVTSILLO, S.V.

Elementary organic analysis by the "wet combustion" method.
Report No.7: Determination of carbon of organic substances
in waste waters of organosilicon industries. Zhur. anal.
khim. 18 no.5:639-643 My'63. (MIRA 17:2)

L 17104-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD

S/0032/63/029/007/0806/0806

ACCESSION NR: AP3004232

AUTHORS: Syavtsillo, S. V.; Nikol'skaya, A. M.; Mashko, T. Ye.

58

TITLE: Determination of nitrogen in boron and silicon nitrides

SOURCE: Zavodskaya laboratoriya, v. 29, no. 7, 1963, 806

TOPIC TAGS: boron nitride, silicon nitride, nitrogen determination

ABSTRACT: A 0.03-0.15 gm aliquot of the nitride is placed in a porcelain combustion boat containing 2-3 gms powdered lithium hydroxide, with which the sample is covered. The boat is inserted in a porcelain tube. To one end of the tube are affixed two absorption wash bottles, each containing 20 ml of 2% boric acid, and to the other end an absorption wash bottle with 20 ml concentrated sulfuric acid. The oven is heated to 750-800°C in 15 minutes, and simultaneously air is passed through at a rate of 65-70 bubbles per minute. This carries with it the fumes of the formed ammonia and water vapors, which are absorbed by the boric acid solution. Within 30 minutes after the temperature has reached 800°C (when the evolution of ammonia has ceased) the solutions from the wash bottles with boric acid are transferred to an Erlenmeyer flask, and the excess boric acid is titrated back with a 0.1 normal solution of hydrochloric acid, with methyl orange as an indicator. The method was checked

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L 17104-63

ACCESSION NR: AP3004232

against that of Dumas and similar results were obtained. Due to foaming, it was not possible to substitute potassium hydroxide for lithium hydroxide.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 02Aug63

ENCL: 00

SUB CODE: CH

NO REF SOV: 000

OTHER: 000

Cara 2/2

ACCESSION NR: AP4012194

S/0191/64/000/002/0062/0063

AUTHORS: Luskina, B. M.; Terent'yev, A. P.; Syavtsillo, S. V.

TITLE: Determination of chlorine combined with silicon in organo chlorsilanes

SOURCE: Plasticheskiye massy*, no. 2, 1964, 62-63

TOPIC TAGS: chlorine, silicon, organo chlorsilane, saponification, diethylene glycol

ABSTRACT: Methods for determining chlorine combined with silicon in organo chlorsilanes are based on its saponification by water or aqueous solutions of alkali and determining the chlorine ion or the resulting hydrochloric acid. To select optimum hydrolyzing conditions, ethyl, isopropyl and α -butyl alcohols, ethylene glycol, diethylene glycol and glycerin were tested. Diethylene glycol is recommended since it is nonflammable, easily available and does not have an unpleasant odor. Hydrolysis should be conducted in a medium of diethylene glycol and water (1:1) and determination of resulting

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ACCESSION NR: AP4012194

hydrochloric acid should be made by the neutralization method.
Accuracy of the analysis is $\pm 0.1\text{-}0.3\%$. Orig. art. has: 1 Table.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: CH

NR REF SOV: 004

OTHER: 003

Card 2/2

L 16596-65 EPA(s)-2/EWT(m)/EPF(c)/EMP(j)/T Pe-4/Pr-4/Pt-10 ESD(c) MLK/RM

ACCESSION NR: AT4048195

S/0000/64/000/000/0303/0306

8-1

AUTHOR: Palamarchuk, N. A.; Syavtsillo, S. V.; Turkel'taub, N. M.

TITLE: Admixture determination in monomeric silicoorganic compounds by the chromatographic method

SOURCE: Vsesoyuznaya nauchno-tehnicheskaya konferentsiya po gazovoy khromatografii,
2d, Moscow, 1962. Gazovaya khromatografia (Gas chromatography), trudy* konferentsii.
Moscow, Izd-vo Nauka, 1964, 303-306

TOPIC TAGS: admixture determination, silicon semiconductor, silane chromatography,
gas liquid chromatography, silicoorganic compound

ABSTRACT: The authors point out that the following undesirable admixtures are frequently encountered in the monomeric silicoorganic compounds used in the production of polymers (silicon semiconductors): in dimethyldichlorosilane - trimethylchlorosilane and methyl-trichlorosilane; in methylchlorosilane - trichlorosilane, dimethylchlorosilane, silicon tetrachloride, etc. The most expedient method for their detection is gas chromatography, using especially sensitive detectors and effective adsorbents. Methods of stepwise chromatography are preferred in this case to developing chromatography. The installation consisted of a column, detector, batch meter and drying system. Two detector types were

Card 1/2

L 16596-65

ACCESSION NR: AT4048195

3

used: the flame ionizer and a catharometer with a sensitivity of 1000 mv.ml/mg according to Porter. The batch meter developed by A. G. Sharonov introduced a welded glass ampoule with the sample, the ampoule being broken by an electromagnet without interrupting the flow of the carrier gas (hydrogen or helium). The solid carrier consisted of crushed "inzen" brick. The stationary phase material was thoroughly desiccated; it consisted of triresyiphosphate, dimethylphthalate, or other materials in various proportions to the solid carrier, optimum 10-15%. It was found that the sensitivity in determining admixtures in dimethyldichlorosilane by stepwise chromatography amounted to 0.02%. The relative accuracy was 5%. The corresponding figures for methyl dichlorosilane and trichlorosilane tested by developing gas-liquid chromatography are 0.05% and 10%. "V.S. Lozovskaya, L. A. Nechayeva and A. A. Nogayeva also took part in the experimental work." Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: None

SUBMITTED: 16 Jul 64

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 004

CTHER: 000

Card 2/2

BUOMINA, R.M.; TERNENTYEV, A. A.; SHAVTSILOV, I.Y.

Determining chlorine contained with silicon in organochlorine-
silanes. Plast. massy no. 4, 63 '61. (MURA 1713)

REF ID: A654220010-0 CWA (1)

24-7-0262

SEARCHED INDEXED SERIALIZED FILED S.V.

TOPIC TAGS: silicoorganic compound, silicon phenylphenoxyl, phenoxyl group determination, phenoxy group

ABSTRACT: Phenylphenoxysilanes ($C_6H_5Si(OC_6H_5)_{4-n}$) and phenyldiphenyloxysilanes

method of determining phenoxyl groups in phenylphenoxysilanes. The phenol formed in the hydrolysis reaction is titrated with iodine solution. Phenylphenoxyl being preferred; silicon is determined acidimetrically. The analysis of phenyldiphenyloxysilanes was carried out by using the bromide-bromate method in a medium of glacial acetic acid. Detailed and formulas are given for the synthesis of phenylphenoxysilanes and phenyldiphenyloxysilanes.

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654220010-0

104175-65

ACCESSION NR. A15605843

104175-65
A15605843
Soviet tables and formulas.

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654220010-0"

IVANOVA, N.V.; PALAMARCHUK, N.A.; STAVTSILLO, S.V.

Gas chromatographic determination of impurities in methyl chloride.
Prest. massy no. 4265-67 '65. (MIRA 186)

SYRAN, YE. P., SHVETSI, I. T., STRADOMSKIY, M. V. and EPIK, E. YA.

"Experimental study of the effect of stream turbulency on heat-exchange in motion of air through tubes."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange,
Minsk, RSSR, 5-9 June 1961

SYEBANBEKOV, K.Zh..

Functional significance of the glumes of the wheat ear. Bot.
(MIRA 19:2)
zhur. 50 no.12:1673-1685 D '65.

1. Pedagogicheskiy institut imeni Abaya, Alma-Ata.

SYB-PVA, Payne [deceased] (Sofiya)

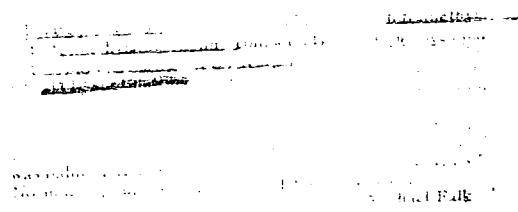
Significance of functional disorders of the central nervous system
in experimentally induced myocarditis [with summary in English].
(MIRA 11:4)
Arkh.pat. 20 no.2:40-48 '58.

1. Iz kafedry patologicheskoy fiziologii (zav. - prof. St.Pisarev)
Vyshego meditsinskogo instituta imeni V.Chervenkova.
(CENTRAL NERVOUS SYSTEM, dis.
funct. disord., eff. on induction & pathogen. of exper.
myocarditis in young dogs (Rus))
(MYOCARDITIS, exper.
eff. of funct. CNS disord. on induction & pathogen. of
exper. myocarditis in young dogs (Rus))

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654220010-0

10 12 0 AM 70



APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654220010-0"

SYBILSKA, D.

✓ chromat-polarographic studies. III. Separation of isomeric
mixture of nitro-compounds by partition chromatography.

Kemula, D. Sybilka and J. Geisler (Roczn. Chem., 1955, 29, 643—
659).—A chromat-polarographic method of separating org. substances by reversed-phase partition-chromatography is applied to the isomers of nitroanilines, chloronitrobenzenes and nitrophenols. Finely powdered gum is used as carrier for the inactive liquid (heptane, chloroform, benzene), water, or aq. dilutions of methanol for developing the chromatograms, and KI (0.2 mol/l.) as electrolyte dissolved in the active solvent. The substance, contained in the stationary liquid in the column, is eluted at 20±1°. The diffusion current of nitro-compounds is measured in the presence of air by a micropolarograph which registers the changes of current with time. The composition of the eluates is analysed by means of an apparatus described in ibid., 1952, 26, 261. It has been found that the separating efficiency of a column, filled with the same carrier, depends on the quantity and quality of the mixture to be separated, on the pH of the percolating solution, on the stationary org. solvent, the admixture of dissolved inorg. compound, the rate of percolation, composition of the active phase, etc. The conditions and technique for complete separation of the *p*-, *o*- and *m*-forms of the above nitro-compounds, and of chloronitrobenzene mixtures which normally occur in the products of technical chlorobenzene nitration are described and the reactions are illustrated by graphs. The adaptation of the method for quant. microanalytical determinations is discussed. (11 references.)

I. S.

PM

COUNTRY : Poland E-3
CATEGORY :
DS. JOUR. : RZKhim., No. 5 1960, No. 17587
AUTHOR :
INST. :
TITLE :
ORIG. PUB. :
ABSTRACT : 0.1 N H₂SO₄ (X)-0.1 N aqueous II, 0.1 N X-0.1 N II solution in 50% III, 0.1 N X-0.1 N II solution in 70% III. When a mixture of mono- and di-NC is chromatographed on cellulose acetate which has been treated with C₄H₉OH, followed by elution with a solution of IX, C₂H₆(NO₂)₂ is eluted first, followed by VII, VIII, and last, a mixture of VI and C₃H₆(NO₂)₂ (150 x 6 mm column, ER 10 ml/hr). In the quantitative determinations of 0.20 mg VII, 0.36 gm VI, 0.62 mg V, and 0.79 mg IV, the error

CARD: 3/4

130

SyBILSKA, D.

Distr: 4E3d

/ Clathrate compounds in chromatography. W. Klemola
and D. Sybilska (Polish Acad. Sci., Warsaw). *Nature* 185,
237-8(1969). Quant. chromatographic sepn. of isomers is
effected by use of clathrate compds. Isomeric nitrophenols,
nitroanilines, chloronitrobenzenes, nitrotoluene, and nitro-
aliphatic compds. are efficiently sep'd. by a column 17 cm.
high with an inner diam. of 5.8 mm. prep'd. with tetrakis(4-
methylpyridine)nickel dithiocyanate as the stationary phase,
2.5M KSCN in 10% (by wt.) 4-picoline in H₂O as the mobile
phase, the eluent being 0.25 M KSCN in 2% (by wt.) 4-
picoline in H₂O. R. Esada

16
1-2-2 (18)

KEMULA, Wiktor; PASCIAK, Jan; SYBILSKA, Danuta.

Chromatopolarographic studies. XVI. Analysis of diethylbenzene dehydrogenation products. Chem anal 6 no.5:807-812 '61.

1. Department of Inorganic Chemistry, University, Warsaw and Research Laboratory, Chemical Works, Oswiecim.

DIMEK, Wojciech; SYBISTOWICZ, Danuta

New synthesis of 2,4-dianilino-5,6-benzoquinazoline. Roczn. chemii
37 no.5:547-552 '63.

1. Department of General Chemistry, School of Economics, Krakow.

DIMEK, Wojciech; SYBISTOWICZ, Danuta

Condensation of N-phenyl-N' - (2-naphthyl)-guanidine with
phenyl isothiocyanate; synthesis of 2,4-dianiline-5,
6-benzoquinazoline. Roczn. chemii 36 no.11:1639-1644 '62.

1. Department of General Chemistry, School of Economics,
Krakow.

HUZL, Fr.; JOACHIMSTHALER, J.; SYKORA, J.; SYBLIK, J.

Lead poisoning in ceramic industry. Pracovni lek. 12 no.5:256-
259 Je '60.

1. Oddeleni chorob z povolani FN v Plzni, prednosta kand. lek.
ved MUDr. Fr. Huzl; Pracoviste dorostoveho lekare MUNZ v Plzni
MUDr. J. Joachimsthalera; Pracoviste krajskeho lekare pece o
zavody MUDr. J. Syblika.
(LEAD POISONING)

RUBINCHIK, Ya.S.; PAVLYUCHENKO, M.M.; SYBUL'KO, I.A.; LEYTSINA, V.G.

Kinetics of formation of magnesium ferrite from magnesium and
iron oxides. Dokl. AN BSSR 8 no.10:654-656 O '64.
(MIRA 18:3)

1. Institut obshchey i neorganicheskoy khimii AN BSSR.

SYC, STEFAN!

FOREMNY, Zbigniew; GASINSKI, Jozef; JAPA, Jozef; SYC, Stefan;
KAZMIERCZAK, Kazimierz

Cytodiagnosis of gastric cancer. Polski tygod. lek. 9 no.49:
1588-1590 6 Dec 54.

1. Z I Kliniki Chorob Wewnętrznych Śląskiej Akademii Medycznej w
Zabrzu; kierownik: prof. dr Józef Japa, z Zakładu Radiologii
Lekarskiej Śląskiej Akademii Medycznej w Zabrzu; kierownik: prof.
dr Stanisław Janiszewicz i z Kliniki Medycznej w Zabrzu; kierownik:
prof. dr Stanisław Januszewicz i z Kliniki Chirurgicznej Śląskiej
Akademii Medycznej w Zabrzu; kierownik: dr Józef Gasinski.
(STOMACH, neoplasms,
diag., cytol.)

SYC, Stefan; JAWORSKI, Josef

Amyloidosis of the tongue as the main clinical manifestation of
plasmocytic reticuloma. Polski tygod. lek. 10 no.7:193-197 14 Feb 55.

1. Z kliniki chorob wewnętrznych Sz. A.M. w Zabrzu, kier. prof. dr.
Josef Japa, Z zakładu anatomiczno-patologicznego Sz.A.M. w Zabrzu, kier. prof.
dr. Witold Niepolomski.

(SARCOMA RETICULOM CELL

plasmocytic, manifest., tongue amyloidosis)

(AMYLOIDOSIS

tongue, as manifest. of plasmocytic reticulum cell
sarcoma)

(TONGUE, diseases

amyloidosis, as manifest. of plasmocytic reticulum cell
sarcoma)

SYC, Stefan

SYC, Stefan

Infectious mononucleosis as disease of the reticulo-
endothelial system. Polski tygod.lek.10 no.49:1580-1584
5 Dec. '55.

1. Z I Kliniki Chorob Wewnętrznych Śląskiej Akademii
Medycznej kierownik: prof. dr Józef Japa. Opole, ul. Dubois 13.

(INFECTIOUS MONONUCLEOSIS, pathology,

Re system, involvement of whole system)

(RETICULOENDOTHELIAL SYSTEM, in various diseases,
infect.mononucleosis, involvement of whole system)

SYC, Stefan

Decalcification of bones in cases of neurofibroma. Polski tygod.
lek. 11 no.31:1378-1381 30 July 56.

1. Z I Kliniki Chorob Wewnetrznych Slaskiej A.M. w Zabrzu;
kierownik: prof. dr. Josef Japa, Opcie, ul. St. Dubois 13.

(NEUROFIBROMA,
bone decalcification in extra-osseous tumors (Pol))

(CALCIFICATION,
decalcification of bones in extra-osseous neurofibromas (Pol))

SYC, Stefan; KOSOBUDZKI, Romuald

3 cases of post-infarction aneurysms of the heart. Polskie arch. med.
wewn. 31 no.5:737-746 '61.

1. Z Oddzialu A Chorob Wewnetrznych Ordynator: dr med. S. Syc
Szpitala Wojewodzkiego w Opolu Dyrektor: dr med. B. Glazer.

(MYOCARDIAL INFARCT compl) (ANEURYSM etiol)

SYC, Stefan; PEC, Kazimierz

A case of generalized herpes zoster with paresis during the course of chronic lymphatic leukemia. Pol. tyg. lek. 17 no.36:1430-1433 3 S '62.

1. Z Oddzialu A Chorob Wewnetrznych; ordynator dr med. Stefan Syc -- Szpitala Wojewodzkiego w Opolu; dyrektor: Borys Glazer; Konsultant Wojewodzki: prof. dr Zdzislaw Wiktor.
(HERPES ZOSTER) (PARALYSIS) (LEUKEMIA LYMPHOCYTIC)

SYC, Stefan; MOCZULSKA-SZYMIK, Bozena; KOMOROWSKA, Renata

Acute dilatation of the stomach in diabetes mellitus. Pol. arch.
med. wewnetr. 34 no.8:1105-1108 '64.

l. Z Oddzialu A Chorob Wewnetrznych Szpitala w Opolu (Ordynator:
dr. med. S. Syc).

Syc, Stefan

Chromium metabolism in the human body. Wiad. lek. 18 no.18:
1039-1434 15 S '65.

z. Z Oddzialu A Chorob Wewnetrznych Szpitala Wojewodzkiego
w Opolu (Ordynator: dr. med. S. Syc).

SYC, Stefan; WEDRYCHOWICZ, Adam

Daily calcium urinary excretion in partly immobilized patients
with paralysis or in plastic casts. Wiad. lek. 18 no.20:1579-
1583 15 0 '65.

1. z Oddzialu Chorob Wewnetrznych Szpitala Wojewodzkiego w Opolu
(Ordynator: dr. med. S. Syc).

SYC, Stefan; MOCZULSKA-SZYMIK, Bozena

Contribution to the pathogenesis of clubbed fingers. Przegl.
lek. 21 no.6:449-452 '65.

Unilateral diaphragmatic relaxation. Ibid.:452-455

1. Z Oddzialu A Chorob Wewnetrznych Szpitala Wojewodzkiego
w Opolu (Dyrektor: Dr. med. B. Glazer; Ordynator: Dr. med.
S. Syc).

ACC NR: AP7003138

SOURCE CODE: UR/0080/66/039/012/2658/2662

AUTHOR: Golub, A. M.; Sych, A. M.

ORG: Kiev State University (Kievskiy gosudarstvenny universitet)

TITLE: Extraction of niobium and tantalum from tributyl phosphate

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 12, 1966, 2658-2662

TOPIC TAGS: niobium, tantalum, phosphate, solvent extraction

ABSTRACT: A study of the distribution of niobium and tantalum in the $\text{MeCl}_5\text{-TBP-H}_2\text{O-KCNS-H}_2\text{SO}_4$ system as a function of the thiocyanate ion, H_2SO_4 and metal concentrations showed that at a high acidity of the aqueous phase in the range of low thiocyanate ion concentrations, niobium concentrates in the nonaqueous phase, while tantalum passes into the aqueous phase. In the $\text{MeCl}_5\text{-TBP-H}_2\text{O-H}_2\text{SO}_4$ system, the distribution of niobium and tantalum is affected by both the H_2SO_4 and the metal concentration. At higher concentrations of the latter, chiefly niobium is washed out of tributyl phosphate by sulfuric acid solutions. It is shown that tantalum and niobium in tributyl phosphate in the presence of a large excess of CNS^- ions are present in the form of the complexes $\text{Ta}(\text{CNS})_6^-$ and $\text{Nb}(\text{CNS})_6^-$. The stability of the niobium and tantalum complexes in tributyl phosphate increases in the order $\text{SO}_4^{2-} < \text{Cl}^- < \text{CNS}^-$. Orig. art. has: 5 figures.

SUB CODE: 07/ SUBM DATE: 21Dec64/ ORIG REF: 004/ OTH REF: 004

Card 1/1

UDC: 542.61'546.882/883

GOLUB, A.M.; SYCH, A.M.

Electrolytic properties of TaCl₅ in nonaqueous solvents. Zhur.
neorg.khim. 10 no.4:889-893 Ap '65. (MIRA 18:6)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko, kafedra
neorganicheskoy khimii.

L 41035-66 EWT(m)/T
ACC NR: AP6013725

(A) SOURCE CODE: UR/0089/66/020/004/0323/0327

AUTHOR: Sychev, B. S.; Mal'kov, V. V.; Komochkov, M. M.; Zaytsev, L. N.

43
40
B

ORG: none

TITLE: The passage of high energy neutrons through iron-water mixtures

SOURCE: Atomnaya energiya, v. 20, no. 4, 1966, 323-327

TOPIC TAGS: neutron shielding, neutron diffusion, neutron detector, neutron flux

ABSTRACT: The accumulation of slow neutrons ($E < 1$ MeV) during the passage of high energy neutrons through iron and iron-water mixtures was determined experimentally and theoretically. A set of 20 mm thick 980 x 980 mm steel plates was placed into a 1000 x 1000 x 2000 mm metal container located in the synchrocyclotron chamber of the OIYAl. Concrete blocks shielded the device from scattered radiation. Neutrons were generated by 170, 250, 350, 480, and 660 MeV protons. The paper presents the characteristics of the three detectors used, the attenuation of the neutron flux generated by high energy protons, the relaxation length of high energy neutrons (for various energies of primary protons and differing concentrations of water), the buildup factors of intermediate neutrons, and the thickness of iron-water shielding of varying hydrogen content for a 200-fold attenuation. An analysis of the results shows that the use

Cord1/2

UDC: 621.039.512.45

L 41035-66

ACC NR: AP6013725

3

of iron without the addition of hydrogen is not expedient. The authors are deeply indebted to V. S. Kiselev for his help in the calculation of the buildup factors of intermediate neutrons, and to V. P. Afanas'yev and V. M. Nazarov for making available the calibrated high-energy and intermediate-energy neutron detectors. Orig. art. has: 7 formulas, 2 figures, and 3 tables.

SUB CODE: 18/ SUBM DATE: 29Jun65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 bth

GANDEL'SMAN, Boris Markovich; SICH, Boris Zinov'yevich; MURAKEYVA, A.K.,
red.; BAKHTIYAROV, A., tekhn.red.

[Spectrum analysis in the manufacture of machinery] Spektral'nyi
analiz v mashinostroenii. Tashkent, Gos.izd-vo Uzbekskoi SSR,
1959. 54 p. (MIRA 14:3)
(Spectrum analysis) (Machinery industry)

SYCH, G. Ya.

GERBIL'SKIY, V.L.; SYCH, G.Ya.

Ways of penetration of ascarid larvae into the vascular bed of the greater circulation. Med.paraz. i paraz.bol. 26 no.2:177-181
Mr-Ap '57. (MLRA 10:7)

1. Iz kafedry biologii i parazitologii Dnepropetrovskogo meditsinskogo instituta (dir. instituta - prof. D.P.Chukhriyenko, zav. kafedroy - prof. V.L.Gerbil'skiy)

(ASCARIASIS, pathol.

penetration of larvae into systemic circ.)

SYCH, L.

Sensitivity of the large mouse-eared bat *Myotis myotis* (Borkhausen)
to air currents in laboratory conditions. *Folia biol* 8 no.1/2:135-
147 '60.
(EEAI 10:4)

1. Department of Zoopsychology and Ethology, the Jagellonian University,
Krakow; head: Prof. Dr. J. Wojtusiak.
(*MYOTIS MYOTIS*)
(*BATS*)
(*AIR*)

UTOCHNIKOV, N.S.; SYCH, L.D.

Estrogen, pregnanediol and 17-ketosteroid content of urine of women with fibromyoma of the uterus. Akush. i gin. 35 no.2: 16-20 Mr-Ap '59.

(MIRA 12:5)

1. Iz kafedry akusherstva i ginekologii (nach. - chlen-korrespondent AMN SSSR prof. K.M.Figurnov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

(UTERUS NEOPLASMS, urine in estrogens, pregnandiol & 17-ketosteroids in leiomyoma (Rus))

(LEIOMYOMA, urine in estrogens, pregnandiol. & 17-ketosteroids in leiomyoma of uterus (Rus))

(ESTROGENS, in urine
in leiomyoma of uterus (Rus))

(PREGNANDIOL, in urine
same)

(17-KETOSTEROIDS, in urine
same)

SYCH, L. D.

Activity of proteolytic and lipolytic enzymes in the mucous membrane and muscular layer of the uterus in fibromyomas. Akush. i gin. no.2:58-63 '62. (MIRA 15:6)

1. Iz kafedry akusherstva i ginekologii (zav. - chlen-korrespondent AMN SSSR prof. K. M. Figurnov[deceased]) Voyenno-meditsinskoy ordena Lenina akademii imeni S. M. Kirova.

(UTERUS--TOMORS) (PROTEASES) (LIPASE)

SYCH, L.I., nauchnyy sotrudnik

Changes of the functional condition of the neuroreceptor apparatus
of the skin in psoriasis following application of antipsoriaticum
in psoriacin [with summary in English]. Vest.derm. i ven. 31 no.6:
11-17 N-D '57. (MIRA 11:3)

1. Iz otdela patofisiologii (sav. - prof. R.Ya.Malykin) i otdela
dermatologii (sav. - prof. N.S.Smelov) TSentral'nogo nauchno-issledo-
vatel'skogo koshno-venerologicheskogo instituta (dir. - kandidat
meditsinskikh nauk N.M.Turanov) Ministerstva zdravookhraneniya RSFSR.
(PSORIASIS, ther.

antipsoriaticum & mustard gas, eff. on neuroreceptor appar.
of skin)

(MUSTARD GAS, ther. use
psoriasis, eff. on neuroreceptor appar. of skin)
(SKIN, physiol.

eff. of mustard gas & antipsoriaticum on neuroreceptor
appar. of skin in psoriasis)

SYCH, L.I., nauchnyy sotrudnik

Histomorphological changes in the skin and its neuroreceptor apparatus in patients with psoriasis treated with antipsoriaticum and psoriasin. Vest.derm.i ven. 35 no.4:29-33 Ap '61. (MIRA 14:5)

1. Iz otdela patomorfologii (zav. - prof. Ye.F. Belyayeva) i otdela dermatologii (zav. - prof. N.S. Smelov) TSentral'nogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. - kand.med.nauk N.M. Turanov) Ministerstva zdravookhraneniya RSFSR.
(PSORIASIS) (NITROGEN MUSTARDS)

RAKHMALEVICH, Ye.M.; BELYAYEVA, Ye.F.; IVANOVA, N.K.; SYCH, L.I.

Morphological and histochemical studies of the skin in lupus
erythematosus. Vest.derm.i ven. no.1:18-23 '62. (MIRA 15:1)

1. Iz TSentral'nogo nauchno-issledovatel'skogo instituta Ministerstva
zdravookhraneniya RSFSR (dir. - dotsent N.M. Turanov).
(LUPUS ERYTHEMATOSUS) (SKIN—DISEASES)

SYCH, L.M., aspirant

Composting time and the composition of manure. Zemledelie
26 no. 2:66-67 F '64. (MIRA 17:6)

1. Dnepropetrovskiy sel'skokhozyaystvennyy institut.

15(4)

AUTHORS:

Sych, L. S., Kozlov, V. I.,
Fetukhov, B. V., Konkin, A. A.

S/183/59/000/06/003/027
B004/B007

TITLE:

The Utilization of Polymer-waste of the Production of Lavsan Fiber

PERIODICAL:

Khimicheskiy volokna, 1959, Nr 6, pp 12-14 (USSR)

ABSTRACT:

Among the waste in the production of the Lavsan fiber, a polyester fiber, the hanks of the godet wheels may be utilized without any special chemical treatment. They are disentangled on a device shown in figure 1, cut up into rayon fiber, and are used as filling medium for upholstered goods and winter clothing. The larger part of the waste (resinified polymer, waste products of the spinnerets, torn fibers) must, however, be decomposed to the initial product (dimethyl-terephthalate). The authors mention respective English patents (Refs 1, 2) and also their attempts at decomposing the polymer by hydrolysis in water or lye and by means of methanol. In water (7 parts by weight corresponding to one part by weight of polymer)

Card 1/3

The Utilization of Polymer-waste of the Production S/183/59/000/06/003/027
of Lavsan Fiber B004/B007

decomposition takes place at 20 to 23 atm within an hour, at 15 atm within 5 hours. The precipitated terephthalic acid is filtered off, dissolved and reprecipitated, and again methylated. In 5 to 7% NaOH (7 to 8 parts by weight corresponding to 1 part by weight polymer) decomposition at 9 to 10 atm takes place within 1 to 2 hours (Table 1). The quantity of re-obtained terephthalate depends on the shape and the size of the waste products. Decomposition by means of methanol is especially recommended, because methanol is a waste product of Lavsan production, directly forms dimethyl terephthalate, and therefore requires no further chemicals (Table 2). The dimethyl terephthalate yield depends on the molecular weight of the polymer (Fig 4) and on the catalyst used in its synthesis (potassiumantimonyl tartrate, calcium acetate, zinc acetate, figure 3). The authors recommend 2 to 3 parts by weight of methanol corresponding to 1 part by weight of polymer, 26 to 27 atm, duration of reaction 3 to 6 h. There are 4 figures, 2 tables, and 2 references.

Card 2/3

The Utilization of Polymer-waste of the
Production of Lavsan Fiber

S/183/59/000/06/003/027
B004/B007

ASSOCIATION: VNIIIV - Vsesoyuznyy nauchno-issledovatel'skiy institut
iskusstvennogo volokna
(All-Union Scientific Research Institute for Synthetic Fibers)

Card 3/3

SYCH, Marek

Simple device for artificial respiration. Polski przegl. chir.
28 no.12:1223-1226 Dec 56.

1. Z Oddzialu Torakochirurgii W.S.S. w Krakowie Ordynator:
dr. W. Laszczak. Adres autora: Krakow, ul. Pradnicka 80.
(RESPIRATORS
simple respirator device (Pol))

EXCERPTA MEDICA Sec 9 Vol 13/7 Survey July 59

3666. SUCCINYLCHOLINE IN ANAESTHESIOLOGY - Sukcynylcholina w anestezjologii - Sych M. and Wasowicz S. I. Klin. Chir., Akad. Med., Krakow - POL. TYG. LEK. 1958, 13/23 (869-876) Illus. 3

Succinylcholine very much resembles ACh in its action on the neuromuscular connections. The principal difference lies in a much longer duration of depolarization induced by succinylcholine. Succinylcholine under the influence of the blood serum enzymes very easily undergoes hydrolysis into the products encountered in physiological metabolism; it is therefore practically non-toxic. It induces excellent relaxation of muscles, which may be well controlled. A complete exclusion of reflexes makes intratracheal intubation a very easy and atraumatic procedure. However, there have been cases of a lengthened action of succinylcholine. This should be ascribed to disorders in the blood enzymes, to the influence of drugs administered simultaneously or to a technical error in the administration of that drug. A series of 242 cases is reported.

SYCH Marek; BARCZYNSKI, Marian

Analgesia with trichloroethylene of Polish production in minor surgery. Polski tygod. lek. 14 no.15:684-687 13 Apr 59.

1. (Z I Kliniki Chirurgicznej Akademii Medycznej w Krakowie:
kierownik: prof. dr. Jozef Bogusz).

(TRICHLOROETHYLENE, anesth. & analgesia
in minor surg. (Pol))

SYCH, Marek

Oxygen as a drug in surgery. Polskie tygod. lek. 14 no.21:972-977
25 May 59.

1. (Z I Kliniki Chirurgicznej A. M. w Krakowie; kierownik: prof.
dr Jozef Bogusz). Krakow, ul. Kopernika 40 I Kl. Chir. A.M.
(OXYGEN, ther. use
in surg., admin. technics & hazards (Pol))
(SURGERY, OPERATIVE
use of oxygen, admin. technics & hazards (Pol))

SYCH, Marek; LIBMAN, Janina

Photometric determination of blood loss during surgical operations.
Polski tygod. lek. 14 no.41:1821-1824 12 Oct 59.

l. (Z I Kliniki Chirurgicznej A. M. w Krakowie; kierownik: prof. dr
Jozef Bogusz).
(SURGERY, OPERATIVE) (BLOOD VOLUME)

SYCH, Marek, Dr. med.

Modern methods of resuscitation of electrocuted persons. Energetyka
(EEAI 10:9)
Pol 15 no.6:165-172 Je '61.

I. Akademia Medyczna w Krakowie. I. Klinika Chirurgiczna Akademia
Gorniczo-Hutnicza w Krakowie, Katedra Urzadzen i Sieci Elektrycznych.

(Electrocution) (Resuscitation)

SYCH, Marek; BARCZYNSKI, Marian; WIERCIOCH, Boleslaw; MENDE, Roman

A case of successful resuscitation in clinical death from tracheal
rupture. Pol. tyg. lek. 16 no.51:1976-1977 18 D '61.

l. Z I Kliniki Chirurgicznej A.M. w Krakowie; kierownik: prof. dr
J. Bogusz.

(RESUSCITATION) (TRACHEA wds & inj)

BOGUSZ, Jozef; OSZACKI, Jan; BARCZYNSKI, Marian; BOZEK, Piotr;
BUTELSKI, Wladzimierz; SYCH, Marek

Attempted local nitrogranulogen therapy of leg sarcoma with the use
of the apparatus for extracorporeal circulation. Polski tygod. lek.
16 no.23:893-895 5 Je '61.

1. Z I Kliniki Chirurgicznej A.M. w Krakowie; kierownik: prof. dr
J. Bogusz i z II Kliniki Chirurgicznej A. M. w Krakowie; kierownik:
doc. dr J. Oszacki.

(LEG neoplasms) (SARCOMA ther) (PERFUSIONS)
(NITROGEN MUSTARDS ther)

SYCH, Marek, dr. med.

Electrocution and the simplest ways of rescue. Wiad elektrotech 28
no.11/12: 369-375 N-D '61.

1. I Klinika Chirurgiczna Akademii Medycznej, Krakow. Kierownik: Prof.
dr. Jozef Bogusz.

SYCH, Marek, dr. med.

Mechanical and electric ways of rescuing electrocuted persons. Wiad
elektrotech 28 no.11/12: 275-379 N-D '61.

1. I. Klinika Chirurgiczna Akademii Medycznej, Krakow. Kierownik:
Prof. dr. Jozef Bogusz.

SYCH, Marek

Fatal complications in anesthesia. Polski przegl. chir. 33 no. 7/9:
1069-1070 '61.

l. z I Kliniki Chirurgicznej AM w Krakowie Kierownik: prof. dr
J. Bogusz.
(ANESTHESIA compl)

SYCH, Marek, dr med.

Problem of artificial resuscitation from mouth to mouth.
Energetyka przem 10 no.12:422-423 D '62.

1. Członek Centralnej Komisji Technicznej Ochrony Pracy i I
Klinika Chirurgiczna Akademii Medycznej, Krakow.

SYCH, Marek

Problems of anesthesia in otolaryngology. Otolaryng. pol. 16 no.4:
635-643 '62.

1. Z Kliniki Chirurgicznej AM w Krakowie Kierownik: prof. dr J. Bogusz.
(OTORHINOLARYNGOLOGY) (ANESTHESIA, INHALATION)

SYCH, Marek; PIECH, Andrzej; GLAZUR, Janina; MOROZ, Janusz;
SZLEZYNGER, Jozef; WECLAWOWICZ, Janusz; STEFANKO, Stanislaw;
LADZINSKI, Kazimierz

Clinical and experimental studies on the use of fluothane in
general anesthesia. Pol. przegl. chir. 35 no.10/11:1044-1048
/63.

1. Z I Kliniki Chirurgicznej AM w Krakowie Kierownik: prof.
dr J. Bogusz z Oddzialu Chirurgicznego Szpitala Wojskowego
w Krakowie Ordynator: plk. dr A. Bielas z Pracowni Anatomo-
patologicznej Szpitala Wojskowego w Krakowie Kierownik: mjr
doc. dr S. Stefanko z Kliniki Neurochirurgicznej AM w Krakowie
Kierownik: prof. dr A. Kunicki.
(ELECTROENCEPHALOGRAPHY)
(LEUKOCYTE COUNT)
(ELECTROCARDIOGRAPHY)
(EPINEPHRINE) (PHARMACOLOGY)
(BLOOD PRESSURE)

BOGUSZ, Jozef; BOZEK, Piotr; BUTELSKI, Wlodzimierz; SYCH, Marek

Results in the chemotherapy of malignant neoplasms using the apparatus for extracorporeal circulation. Pol. przegl. chir. 35 no.10/11:1150-1152 '63.

1. Z. I Kliniki Chirurgicznej AM w Krakowie Kierownik: prof. dr J. Bogusz.

(ISOLATION PERfusion) (MECHLORETHAMINE)
(SARCOMA) (LEG) (HEART, MECHANICAL)
(MELANOMA) (NEOPLASM THERAPY)

SYCH, Marek

A simple apparatus for artificial respiration. Pol. przegl.
chir. 35 no.10/11:1153-1155. '63.

1. Z I Kliniki Chirurgicznej AM w Krakowie Kierownik: prof.
dr J. Bogusz.

(RESPIRATORS)

NEDIN, V.V., doktor tekhn. nauk; MEYKOV, O.D., kand. tekhn. nauk;
ECSENYAKOV, Ye.M., inzh.; SYCH, N.A.

Comparative testing of dust collectors under industrial conditions. Bor'ba s sil. 6:151-157 '64 (MIRA 18:2)

1. Krivorozhskiy filial Instituta gornogo dela im. M.M.Fedorova.

SYCH, N.M., inzh.

Estimate of voltage and power losses in planing and operating
electrical networks. Izv. vys. ucheb. zav.; energ. 8 no.7;
117-119 Jl '65. (MIRA 18:9)

1. Belorusskiy politekhnicheskiy institut.

KOROBOV, M.M.; NALETOV, I.F.; OVADIOVICH, I.Ya.; SYCH, P.X.

Use of a pneumatic-tube system at the trilesty Alcohol Plant.
Spirt.prem.22 no.1:27-28 '56. (MIRA 9:7)

1.Kiyevskiy tekhnologicheskiy institut pishchevyy promyshlennosti imeni Mikeyama (for Kerebev).2.Kiyevskiy spirtovyj trest (for Nalesov, Ovadievich).3.Trilesskiy spirtevyy zaved (for Sych).

(Pneumatic-tube transportation)

ASHKINUZI, Z.K.; YEGOROV, A.S.; MAMUNYA, A.U.; MAGICHEVA, A.I.;
SYCH, P.K.; TYUZHEV, M.F.

Continuous cooking at the Trilesskiy Alcohol Plant.
Spirit.prom. 26 no.4: 15-19 '60. (MIRA 13:8)
(Kiev--Alcohol)

MAMUNYA, A.U.; REMEZ, Ye.O.; SYCH, P.K.

Automation of mash preparation in the manufacture of alcohol from
grain and potato raw materials. Trudy Ukr.NIISP no.8:93-100 '63.
(MIRA 17:3)

SYCH, R.

A method of scale impression in plastic. Rocz nauk roln zootechn
84 no.2:347-361 '64.

1. Laboratory of River Farming of the Institute of Inland Water
Fisheries, Warsaw.

ACC NR: AP6011516

SOURCE CODE: UR/0382/66/000/001/0085/0092

AUTHOR: Sych, V. M.

ORG: none

TITLE: Magnetohydrodynamic viscous flow of a conducting fluid in ducts, considering the arbitrary conductivity of walls

SOURCE: Magnitnaya gidrodinamika, no. 1, 1966, 85-92

TOPIC TAGS: magnetohydrodynamics, viscous flow, conductive fluid, electric conductivity, MHD generator

ABSTRACT: The variational method has been used to investigate the steady flow of a conducting fluid in rectangular ducts, considering the arbitrary conductivity of walls in the presence of a transverse magnetic field. The results obtained are used for the determination of viscous and ohmic losses in magnetohydrodynamic (MHD) generators. Orig. art. has: 1 figure and 14 formulas. [Based on author's abstract]

[NT]

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